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# DEFENSE SYSTEMS MANAGEMENT COLLEGE



## PROGRAM MANAGEMENT COURSE INDIVIDUAL STUDY PROGRAM

THE NAVY ACQUISITION MANAGEMENT  
PROGRAM REVIEW PROCESS

STUDY PROJECT REPORT  
PMC 77-1

Ann D. Ret  
GS-13 DNC

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THE NAVY ACQUISITION MANAGEMENT  
PROGRAM REVIEW PROCESS

Individual Study Program

Study Project Report

Prepared as a Formal Report

Defense Systems Management College

Program Management Course

Class 77-1

by

Ann D. Ret  
GS-13 DNC

May 1977

Study Project Advisor  
Mr. Frederick J. Kelley

This study project report represents the views, conclusions and recommendations of the author and does not necessarily reflect the official opinion of the Defense Systems Management College or the Department of Defense

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DEFENSE SYSTEMS MANAGEMENT COLLEGE

**STUDY TITLE:**  
**THE NAVY ACQUISITION MANAGEMENT PROGRAM REVIEW PROCESS**

**STUDY PROJECT GOALS:**  
To identify, describe and evaluate the organization, purpose, utilization and impact of acquisition program reviews as a method of management within the Navy.

**STUDY REPORT ABSTRACT:**

The purpose of this study project is to provide a comprehensive description of the management review process which the Navy program manager must surmount. The paper describes program reviews conducted by organizations external to the program office from the reviews held within the Systems Command to those held at the OSD level. The program review process is examined on the basis of a program's assigned Acquisition Category (ACAT) and consequent level of decision authority.

The relationship between the Planning, Programming and Budgeting System (PPBS) and the acquisition management review process is described and the need for coordination between the two review processes is emphasized.

In preparing the paper extensive personal interviews were carried out both with program managers and with executives involved in the management review process.

The report illustrates many of the positive aspects of the review process. Some of these aspects are not always readily apparent, and the report concludes that while the review process is often burdensome and time consuming, it can provide the program manager with valuable personal contacts and an insight into the desires and needs of the decision makers.

**SUBJECT DESCRIPTORS:** Management Techniques 107, Management Control 126, Management by Exception 14, Program Management 414

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## EXECUTIVE SUMMARY

The recent trend towards decentralized decision making within DOD increases the importance of thorough program reviews within the Navy. OPNAVINST 5000.42A identifies the program review process as "...the principal means for monitoring acquisition programs...." and establishes levels of decision authority for program review and approval based on funding thresholds. The advocacy role of the program manager is balanced at the major milestone decision points by the broader awareness of those in higher management positions.

SECNAV, CNO, CNM, and the Systems Commands have established review boards in order to ensure adequate consideration of all disciplines and functions inherent in managing a program. While the philosophical approach to decision making varies depending on the military or civilian orientation of the review board, in all cases, the decision maker relies greatly on the corporate recommendations of the boards. Board members, in turn, are influenced by their staff assistants who gather information, identify issues, and formulate positions. The use of staff personnel conserves the reviewing authorities' time, but results in a proliferation of pre-briefings which burden the program manager.

Yet, the successful program manager finds ways of coping with the review process and the attendant requests for information. Managers turn pre-briefings to their advantage by using them as a means of determining the concerns of higher

management and as sounding boards for their own proposals.

Most managers agree that the review process provides good exposure and an opportunity to sell their programs.

This paper examines the review process at each level of decision authority, discusses the relation of the milestone review process with the Planning, Programming and Budgeting System, and assesses the impact of program reviews on the program manager.

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## SECTION I

### INTRODUCTION

Within the Navy one of the primary means of providing information for management decisions regarding acquisition program approval is the formal program review. This paper discusses the milestone review process outlined in OPNAVINST 5000.42A (Weapon Systems Selection and Planning). It compares the objectives of program reviews and the varying philosophical approaches taken by reviewing authorities at different organizational levels. In addition, the paper examines the impact of the review process on the program manager.

The program reviews discussed herein are conducted by groups outside the program office. The mechanisms by which a program manager determines the status of his own program are worthy of a separate paper. Similarly, the reviews associated with the Planning, Programming, and Budgeting System (PPBS) are so extensive as to warrant separate consideration. However, the paper does discuss briefly the relation of the milestone review process with the annual PPBS cycle since decisions made in each arena must be coordinated.

OPNAVINST 5000.42A categorizes Navy programs and identifies the organizational levels which have decision authority for each category. The paper discusses the specific reviews in ascending order of decision authority. In addition, the paper addresses Naval Material Command and Naval Sea Systems Command reviews which lead up to and provide information for the actual milestone decision reviews.

The issuance of the new 5000 series DOD Directives, the change in DOD leadership and the NAVMAT reorganization have caused changes in the Navy program review process over the last few months. Additional changes are anticipated as a result of the contemplated realignment of the SECNAV organization and the recommendations of the Phase IV Panel on Improving Management of Acquisition in the Naval Material Command. It is hoped that these changes will lead to more effective use of the program review as a management tool.

## SECTION II

### PROGRAM REVIEWS AS MANAGEMENT TOOLS

Management theorists traditionally consider the functions of planning, directing and controlling as basic elements in the process of managing. These functions encompass the definition of goals and objectives, the determination of the methods to accomplish the goals and the means by which the organization verifies the relevance of the goals and ensures that they are being achieved. While planning, directing and controlling are discrete, sequential activities, they are carried on continuously with each function overlapping and affecting the other. Within the Department of Defense and the Navy, program reviews are used as a means of accomplishing the three basic management functions.

While detailed planning is carried out prior to a formal review, it is during the review that the decision maker authenticizes the goals and approves the plans to attain them. Koontz and O'Donnell state that "decision making-the selection from among alternative courses of action-is at the core of planning."<sup>1</sup> The acquisition management reviews discussed herein are primarily decision rather than status reviews. Briefers are required to present viable alternative approaches for the continuation of the program. Their recommended approach is outlined in a planning document. Reviewing officials discuss and assess the proposed plans. The decision maker approves the planning document or directs that it be revised. He gives instructions which serve as short-term planning guidelines to influence the actions of the program managers until the next program review.

As he approves plans and gives instructions for carrying them out the decision maker is performing the function of directing. Effective direction is dependent upon clear plans and "...assumes that managers are sure of their course and that authority delegations and relationships are definite."<sup>2</sup> Yet, one of the findings of the 1975 Navy Marine Corps Acquisition Review Committee (NMARC) was that there is "Inadequate definition and interpretation of the acquisition management roles of the Office of the Secretary of Defense (OSD), the Office of the Chief of Naval Operations (OPNAV) and the Naval Material Command (NAVMAT) resulting in excessive and counter-productive involvement of higher staff levels in the direct management of weapon system acquisition programs."<sup>3</sup> This finding is corroborated by program managers and OPNAV officials who experience a multitude of pre-reviews by OSD and Navy secretariat staffs before briefing the final decision maker. The conflicting direction provided at the prebriefs frustrates the program manager and lengthens his preparation time for the program review.

The program review process affords the DOD/Navy decision maker a method of program control. He is able to measure the accomplishment of events against standards and objectives defined in earlier plans. The Decision Coordinating Paper (DCP), the Procurement Plan (PP), the Test and Evaluation Master Plan (TEMP) and other documents are used as bases of comparison with actual performance, costs and schedules. The decision maker attempts to correct deviations from the plans by setting new goals, formulating new plans or adjusting resources to support the plans. This action closes the management loop and allows the acquisition process to continue.

The program review is utilized as a management technique for planning, directing, and controlling nearly all Navy acquisition programs. Yet, while the same management concepts are applicable to all programs, the organizational level of attention and the formality of the reviews vary. To adequately manage hundreds of acquisition programs, the Navy follows the principle of management by exception. OPNAVINST 5000.42A defines the program thresholds and the associated management review process.

### SECTION III

#### IDENTIFICATION OF DECISION AUTHORITY IN THE NAVY

OPNAVINST 5000.42A (Weapon Systems Selection and Planning) states that "the principal means for monitoring acquisition programs is the Program Review process." The instruction recognizes the management by exception practice by indicating that "reviews are conducted at levels consistent with the program decision authority for each program." Navy programs are divided into four Acquisition Categories (ACATs) to facilitate effective management and review. A specific level of decision authority and specific acquisition procedures and responsibilities are assigned for each category as follows:

1. ACAT I - This category coincides with the DOD Directive 5000.1 (Major System Acquisitions) "major program" designation. Programs in this category are designated by SECDEF based on recommendations by DOD Component Heads or OSD Officials. The primary consideration in such a designation is program cost, \$75 million in Research, Development, Test and Evaluation (RDT&E) or \$300 million in production funds. The decision authority for ACAT I programs is the SECDEF/DEPSECDEF. ACAT I programs are documented by a Mission Element Need Statement (MENS) and a Decision Coordinating Paper (DCP).

2. ACAT II - This category includes three types of programs:

a. Secretary of the Navy (SECNAV) designated programs for which SECNAV is the decision authority. Such programs will be documented by a Navy Decision Coordinating Paper (NDCP) and a MENS.

ACQUISITION CATEGORIES

<u>ACAT</u>	<u>DESIGNATED BY</u>	<u>NOMINAL DOLLAR VALUE THRESHOLD</u>		<u>OTHER CRITERIA</u>
		<u>RDT&amp;E</u>	<u>PRODUCTION</u>	
I	SECDEF or DEPSECDEF	\$75M	\$300M	Lesser programs designated by SECDEF or DEPSECDEF.
II	DSARC principal SECNAV, or CNO	\$20M	\$ 50M	Lesser programs recommended by CHNAVMAT, Op-090, Op-098, or pro- gram sponsor (DCNO/DMSO).
III*	Program Sponsor	\$ 5M	\$ 20M	Lesser programs recommended by CHNAVMAT, Op-090, Op-098, or Developing Agency (DA).
IV*	CHNAVMAT			Includes all pro- grams not designated ACAT-I, II, or III.

\* NOTE: Programs below the ACAT-III dollar threshold will normally be designated ACAT-III if:

- a. They directly affect the military characteristics of ships, aircraft, or other combatant units; or
- b. They require OT&E to support key program decisions; or
- c. They require Fleet RDT&E Support.

b. Programs with an estimated RDT&E cost of between \$20 and \$75 million or an estimated production cost of between \$50 and \$300 million. This type also includes programs designated by CNO, CNM, Director of Navy Program Planning (OP-090), Director of RDT&E (OP-098) or Program Sponsors. For these programs the CNO is the decision authority and an NDCP serves as the controlling document.

c. Ship acquisition programs not requiring DSARC review as determined by SECDEF and SECNAV. CNO serves as the decision authority and the NDCP documents program decisions.

(OPNAVINST 5000.42A identifies a fourth type of ACAT II program for which the decision authority is a DSARC Principal and which is documented by a Program Memorandum. This type of program is no longer recognized by DODD 5000.1. Existing Program Memoranda are to be redesignated as NDCP programs controlled by SECNAV unless specific action is taken by SECDEF to designate them as DCP programs. \*)

3. ACAT III - Programs below the ACAT II level which have estimated RDT&E costs between \$5 and \$20 million and estimated production costs between \$20 and \$50 million are included. In addition, programs designated by CNO, OP-090, OP-098, or the Developing Agency (DA) may be ACAT III. Programs which fall below ACAT III funding thresholds but which directly affect the military characteristics of ships and aircraft, and which require Operational Test and Evaluation (OT&E) or fleet RDT&E support are designated ACAT III. The decision authority is the program sponsor and the NDCP documents the program.

4. ACAT IV - This category includes all programs not in ACAT I, II, or III. The Chief of Naval Material (CNM) or his designated subordinate serves as the decision authority. ACAT IV programs require NDCPs.

OP-098 publishes a quarterly listing of all Navy acquisition programs, by ACAT. The 25 April 1977 ACAT Index identifies a total of 699 programs. Of these, 82 are classified as ACAT I, 233 are ACAT II, 281 fall into the ACAT III category and 103 are ACAT IV.<sup>5</sup>

DOD Directive 5000.1 states that "the system acquisition process is a sequence of specified phases of program activity and decision events directed to the achievement of established program objectives...." It outlines four key milestones at which the decision maker can initiate, increase, decrease, redirect or terminate program commitments for major programs. The decision points are:

Program Initiation - Milestone 0

Demonstration and Validation - Milestone I

Full-Scale Engineering Development - Milestone II

Production and Deployment - Milestone III

Decisions regarding the latter three Milestones are made as a result of formal program reviews.

The Navy recognizes the significance of these milestones and applies the same requirements for program reviews for ACAT II, III, and IV programs. In addition, special reviews may be held when matters perceived as jeopardizing program success become evident during periods between major milestone reviews.

Despite the fact that program acquisition categories are defined, decision authorities are designated and decision milestones are established by the OPNAVINST, the review process is not carried out with precise formality for all categories of programs. In fact there is no universally agreed upon means of determining what constitutes an acquisition program. There is not necessarily a one to one relationship between RDT&E project numbers or program element line items and specific tasks which constitute acquisition programs. Many programs are funded through more than one budget line item particularly during advanced development and even during early engineering development. Because of this, one can not easily estimate the magnitude of funding associated with the project and thus it is difficult to determine the appropriate acquisition category.

There is disagreement within the Systems Commands, NAVMAT and OPNAV as to the appropriate basis for defining ACATs. Some officials feel that the need for OT&E or fleet RDT&E support should not be the dominant factor in determining ACAT III programs, outweighing funding thresholds and program risk. While funding levels are relatively good indicators of program complexity they should not be used in place of an analysis of the criticality of the program when determining acquisition categories.

An example of a program for which risk was not adequately considered when the ACAT was assigned and the decision authority determined is the Major Caliber Lightweight Gun (MCLWG). Based on funding levels, the program was designated ACAT II with CNO as the decision authority. When the program experienced difficulties during Operational Evaluation (OPEVAL),

the newspapers publicized the problems. This led Congress to request a GAO investigation. Not only was SECDEF unprepared for questions, but SECNAV and CNO did not have a coordinated position on how to resolve the problems. Because of the high-level attention now focused on the program the decision authority has been raised to the SECDEF level. Incidents such as this point out the need not only for judgement in assigning decision authority but for thorough understanding of program issues and a coordinated stand on program alternatives by Navy officials at the time of major program events or milestones.

Both CNO and SECNAV staff members recognize that the current situation which vests decision authority for ACAT II programs in two officials (SECNAV and CNO) is undesirable. For this reason, and to bring Navy program reviews and documentation in line with DODD 5000.1 which no longer refers to Program Memoranda, OPNAV officials plan to revise OPNAVINST 5000.42A. They anticipate that for each ACAT there will be a single specified decision authority.

#### SECTION IV

##### THE RELATION BETWEEN THE MILESTONE REVIEW PROCESS AND THE PPBS

Management decisions within the Navy and DOD regarding program initiation, restructuring and continuation must be validated or confirmed in two separate arenas, the acquisition milestone review process and the Planning, Programming and Budgeting System (PPBS). As with any dynamic organization DOD and Navy receive inputs of resources and return products and services as an output. The money gathering function is governed by the PPBS and is separate from the spending function which is monitored and guided by the acquisition program review process. In order for a program to continue through its acquisition cycle without major setbacks or interruptions, it must be supported with the complementary decisions in both arenas. As stated in DODD 5000.1, "Secretary of Defense Milestone decisions to initiate system acquisitions or to redirect the program do not authorize the commitment of funds. Appropriate action will be taken to reflect the decision in the PPBS documentation for budget approval and funding."

The Ship Acquisition Reef Points Handbook compares the PPBS review process with the milestone review process. The PPBS reviews determine the requirements which are included in the DOD budget request which is forwarded to Congress for funding. During the PPBS reviews a program "is challenged as to its necessity and validity as part of the total (DOD/Navy) program, and its priority among other requirements in the PPB system." In contrast, during the milestone review process, the "examination is focused on the merits of the program itself, and not on its merits as part of a total service program."

Milestone Review decisions do not always coincide with the PPBS cycle. "The DCP/DSARC process augments PPBS by addressing issues related to the progress of individual defense system programs, and ensures timely SECDEF review. This review is related...to the individual program schedule rather than to the PPBS schedule. SECDEF (and Navy) decisions made through the DCP/DSARC process must be reflected in the Five Year Defense Plan (FYDP), and should be accomplished ...during the Program Objective Memoranda (POM)/Issue Paper/Program Decision Memoranda (PDM) process, depending on when the DCP/DSARC related decision is made."<sup>6</sup>

The NMARC recognized the potential disruption to Navy programs and objectives which could be caused by conflicting decisions in the two areas and cautioned that, "Overall goals must be well defined in relation to OSD guidance and projected resources in order that OSD top-level commitment can be secured similarly through the DSARC and PPBS process."<sup>7</sup> In order to determine how the Navy could effectively implement NMARC recommendations regarding system acquisition, a Navy Systems Acquisition Steering Group chaired by OP-098 was organized within OPNAV.<sup>8</sup> One of the Steering Group's tasks concerns coordination of the PPBS and DCP/DSARC systems. While decisions are not automatically coordinated between the systems, there are interfaces between them particularly in the area of supporting documentation.

The PPBS and Milestone Review process are linked at the time of Program Initiation by the Operational Requirements (OR) document and the Mission Element Need Statement (MENS). It is anticipated that the

MENS will bridge the money gathering and spending functions. In response to and in accordance with the Planning and Programming Guidance (PPG) issued by SECDEF as part of the PPBS process, the Services submit statements of mission needs (MENS) and request permission to explore alternative solutions to the mission needs. SECDEF approval of the MENS constitutes program initiation or Milestone 0 in the milestone review process.

The MENS is a DOD document and is prepared for ACAT I (and selected ACAT II) programs only. However, the Navy is attempting to utilize the Operational Requirement document (OR) in the same bridging function for ACAT II-IV programs. OP-090 prefers to assign budget Program Element (PE) numbers after there is an approved OR for a program. Thus, the OR marks the formal recognition of a program in the PPBS process and it also begins the requirements determination and approval process. ORs for ACAT I and other significant programs are reviewed by the CNO Executive Board (CEB) or its subpanels and are subsumed by DCPs, or NDCPs which are approved at Milestone 1.

To ensure that the two review and decision processes are complementary, the program manager, working through his OPNAV Program Sponsor should attempt to schedule CEB/DNSARC reviews so that decisions resulting therefrom can be incorporated in the yearly POM cycle. "The Program Sponsor is responsible for insuring that SECDEF decisions based on DSARCs and SECNAV or CNO decisions based on DNSARCs and CEBs are fully funded during the CNO Program Analysis Memorandum (CPAM)/POM process, and that funding levels are in conformance with the decision previously made."<sup>9</sup> Program milestone decisions which are not

synchronized with the POM cycle and which require changes to the FYDP must be accommodated by means of a Program Change Request (PCR). Funds must be reprogrammed within the Navy and the program manager risks a delay if his program is not of sufficient priority to warrant reprogramming. In some instances CEB/ARC (Acquisition Review Council) decisions have not been upheld in the PPBS process. In such cases, the program manager must restructure his program and go back through briefing cycle to obtain ARC/CEB approval of his revised program. Obviously this adds to his briefing schedule.

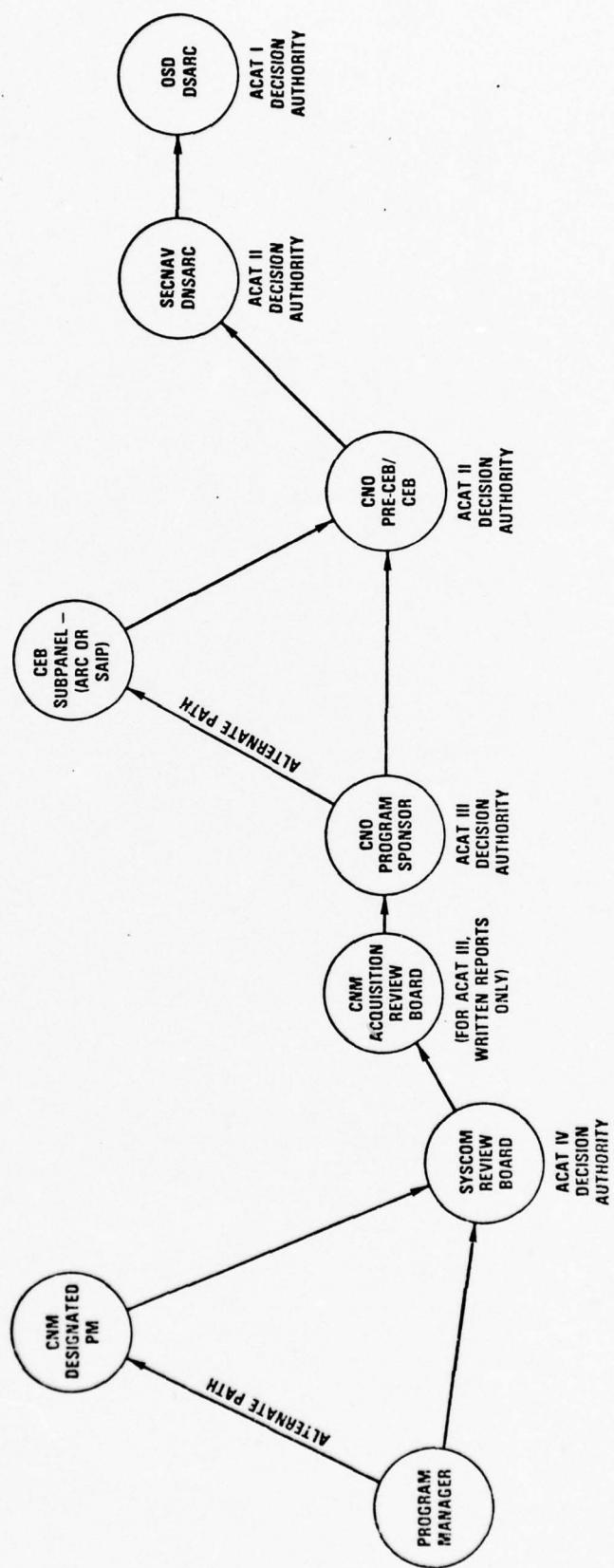
SECTION V  
ACQUISITION CATEGORY IV PROGRAMS

The number of ACAT IV Programs is limited by definition, since a program is placed in category III regardless of its low dollar value if it requires OT&E or Fleet RDT&E support. Nevertheless, the OPNAV ACAT List identifies 103 ACAT IV items. OPNAVINST 5000.42A requires that these programs be formally reviewed in ways similar to those employed by higher level programs.

The Navy Test and Evaluation (T&E) community, led by the Commander, Operational Test and Evaluation Force (COMOPTEVFOR) and the Director, Test and Evaluation Division (OP-983) has been instrumental in determining the decision authority in formalizing the review procedures for ACAT III and IV programs. The need for OT&E is the determining factor in assigning decision authority for low dollar value programs. This enables COMOPTEVFOR to preserve his direct access to CNO for decisions on T&E matters. Following OP-983's lead, the NAVMAT T&E Coordinator established procedures for review and approval of ACAT IV programs.

NAVMATINST 3960.6A (Test and Evaluation) requires that Systems Commands and CNM designated Program Managers (PMs) establish Program Review Boards for ACAT IV programs. These Boards are to serve as the decision making bodies which approve ACAT IV programs for progression to the next milestone and approve recommendations (to OP-98) for certification of technical readiness for Operational Evaluation (OPEVAL) for ACAT I, II, and III programs. Boards are to be chaired by the SYSCOM Commander or his Deputy. To ensure that all functional

## SEQUENCE OF NAVY ACQUISITION PROGRAM REVIEWS



areas are represented in the program review. Board members will be drawn from the following areas:

1. SYSCOM/PM project office
2. Material acquisition or reliability/maintainability
3. Logistics support
4. Research and development
5. Financial management
6. Test and evaluation

The three Systems Commands affected by the NAVMAT Instruction, NAVAIR, NAVELEX, and NAVSEA, have issued implementing instructions.\* However, actual implementation has proceeded slowly. Systems Commands have been concerned with the increased amount of work caused by the program reviews. Not only have program managers objected to the need for an acquisition review in addition to the previously established budget and procurement reviews, but also top management at the Directorate level and above has expressed a desire to minimize the amount of time spent at formal Board meetings. Two of the SYSCOMs, NAVAIR and NAVSEA, have lowered the level of Board Chairman from the SYSCOM Commander to a Directorate level official. In these cases the Board recommends actions to the Commander/Vice Commander who retain decision-making authority.

\* NAVELEXINST 3960.3 of 18 May 1976, subj: Test and Evaluation

NAVSEAINST 3960.2 of 21 December 1976, subj: Test and Evaluation

NAVAIRNOTE 5420 of 7 Sept 1976, subj: Establishment of the NAVAIR Acquisition Program Review Board

Another factor which has quelled any enthusiasm the Commands may have had for activating the Review Boards is the relative meaninglessness of their production decision authority. NAVMATINST 3960.6A clearly states, "Program decision authority for ACAT IV programs is delegated to the addressees." Yet, NAVMATINST 4720.1 (Approval of Systems and Equipment for Service Use (ASU)) retains authority for ASU within NAVMAT. Approval for Service Use is the primary consideration on which production approval is based. Thus, the SYSCOMs feel their production decision is merely a "pro forma" acceptance of a NAVMAT decision.

Up to this time none of the Systems Commands has used its Program Review Board extensively as a tool for managing ACAT IV programs. Lack of sufficient supporting staff personnel and unresolved inter- and intra- organizational responsibilities have contributed to under-utilization of the Boards. However, their potential usefulness is slowly being recognized. COMNAVAIR intends to use the NAVAIR Program Review Board as a forum for reviewing programs of interest on an "ad hoc" basis. NAVELEX is considering expanding its Board to include OPNAV and NAVMAT sponsor representatives in the hope that this might minimize the need for staff reviews in those organizations. As discussed below, there are internal NAVSEA reviews which could possibly be consolidated under the auspices of the Program Review Board.

## SECTION VI

### ACQUISITION CATEGORY III PROGRAMS

Programs in the ACAT III zone constitute a majority of Navy programs. While their individual dollar value is not nearly as awesome as that of an ACAT I or II program, considered together ACAT III program funds account for a large portion of Navy R&D and procurement dollars. It is important that these programs be managed efficiently and evaluated methodically. OPNAVINST 5000.42A suggests a mechanism for ACAT III program review, the OPNAV Review Board whose members would be designated by the Program Sponsor (DCNO/DMSO). The Program Sponsor, acting for the CNO would make the program decisions.\*

In practice such formal Sponsor review boards have not been established. The depth and frequency of Sponsor reviews depends on the managerial style of the Sponsor and his interest in a particular program. All Sponsors seek updated information when the Program Objectives Memoranda (POM) is revised, when the Budget is prepared and at the time of the Mid Year Review. In addition, if Sponsors must justify their programs at Congressional hearings during budget enactment, they may call for special briefings.

Updated program information may be conveyed in several ways. Depending on the relationship between the Sponsor and the Systems Command acquisition manager, OPNAV Sponsors up to the two star level may visit SYSCOM Directorates to get an overview of several programs. Sponsors

\* The term Program Sponsor used in this paper denotes the DCNO/DMSO as well as his subordinates at the 05/06 level.

may ask program managers to formally brief them at the Pentagon or may simply ask for written back up documentation. Sponsors typically want to receive funding, schedule, and top level task status information. Yet, because the information is requested informally by phone, Sponsors often do not receive it in the detail or format they desire. Both Sponsors and program managers complain of the time wasted in resubmitting information.

Most ACAT III Sponsor reviews are keyed to the budget cycle and there is no assurance that a complete review of all program factors (i.e. engineering, support, procurement schedule, as well as financial) will take place at the transition point between acquisition phases. Past and present managers of ACAT III programs indicate they have had a great amount of independence in carrying out their acquisitions. In many cases, after taking a major step such as initiating or completing a significant test effort, the PM himself would initiate a briefing to inform his Sponsor of the status of the program.

In most instances, managers relish this independence and find it easier to make cost, schedule, and performance tradeoffs in accordance with their own perceptions of what is necessary to successfully conclude the program. They have found it relatively easy to ignore the paperwork requirements imposed by functional "cultists" such as the ILS, T&E, and R&M communities.

Of course, no one expects a Program Sponsor to be involved with the day to day decisions a program manager must make. Sponsors may be thought of as working at the coordinative managerial level linking the operating

program managers with the SECNAV/SECDEF policy makers at the strategic level of the organization.<sup>10</sup> Consequently, Sponsors act as intermediaries responding to requests for information from higher authority and forwarding requests for resources from managers. Because their actions are determined by the needs of the operating and strategic levels, Sponsors seem to move from one crisis to another. Thus, it has been difficult for them to implement a formalized and routine, even if infrequent, program review system.

CNO staff personnel respond favorably to the suggestion that responsibility for milestone decision point program reviews for at least some ACAT III level programs be delegated to the Naval Material Command. OPNAV Sponsors are less receptive to the idea, pointing out that final decision authority for approving or disapproving program progress should remain in OPNAV since OPNAV is responsible for program funding.

The Sponsor puts the program in perspective with regard to the vital needs and priorities of the Navy. To a greater extent than NAVMAT or SYSCOM top management are able, he can pace the progress of a program by expanding or reducing funds. He is aware of the ripple effect the funding of one program can have on the progress of related programs. Nevertheless, Sponsors concede that if OPNAV operating guidance were sufficiently comprehensive, some selected programs could be turned back to NAVMAT for review. CNM recommendations would be forwarded to OPNAV for approval. Such a step would bring continuity to the review process and ensure that management considerations and functional disciplines would be considered prior to acquisition phase changes.

## SECTION VII

### ACQUISITION CATEGORY I AND II PROGRAMS

An acquisition program falls under the purview of the Defense Systems Acquisition Review Council (DSARC), Department of Navy Systems Acquisition Review Council (DNSARC), CNO Executive Board (CEB), Acquisition Review Council (ARC) or Ship Acquisition and Improvement Panel (SAIP) depending on its funding level or SECDEF/SECNAV interest.

However, to consolidate the Navy position all ACAT I programs undergo a CEB review prior to each DNSARC and DSARC. ACAT II programs are also reviewed by the full CEB or its subpanels the ARC and SAIP depending on the decision to be made. Therefore, ACAT I and II programs will be grouped together in this section and the section divided into discussions of the CEB, the ARC and the SAIP, the DNSARC and the DSARC.

#### CEB Reviews

The CNO Executive Board was established in 1971 in order to facilitate CNO review of programs which cross traditional lines of authority. The CNO desired that his Deputies function as a corporate body to provide him with advice on a broad spectrum of issues and not just on matters within their individual areas of responsibility. OPNAVINST 5420.2J (CNO Executive Board) identifies the 14 Permanent Members of the CEB including the CNO, VCNO, DCNOs, DMSOs and CNM. In addition, there are some 24 Associate Members so that the CNO may go below the DCNO/DSMO level to receive advice on particular issues as needed.

CEB meetings are decision oriented. They are held to contribute to full understanding of issues, expand alternatives and extend evaluation.

CEBs are held at major milestone points for ACAT I and II programs. However, they can be held at any point in the acquisition or life cycle of a program if it is determined that a CNO/VCNO decision is needed. Excessive cost growth is an example of a problem which would warrant CEB attention outside the normal review cycle. CEB meetings may be requested by any of the members. Program managers can request CEBs through their Program Sponsors.

While the CEB provides the opportunity for the program manager to present his case directly to the CNO the groundwork for the decision is laid out earlier during the formal and informal pre-brief sessions. The manager will have briefed various echelons within his Systems Command as well as NAVMAT for high interest programs or those which affect more than one SYSCOM. The Program Sponsor will have been involved in the preparation of the briefing and may make part of the presentation. In addition, the program manager and his Sponsor will have had extensive discussions with COMOPTEVFOR representatives and with members of the Systems Analysis Division, OP-96.

For each program scheduled to go before the CEB, an OP-96 Action Officer is assigned.

\* CEBs are held to examine issues other than those posed by acquisition programs. Such meetings, however, are outside the scope of this paper. Another formal mechanism for briefing the CNO/VCNO exists in the Navy Decision Center (NADEC) Briefing. NADECs are informational rather than decision briefings and usually cover topics of a broader nature than a specific acquisition program.

"Relative to the program acquisition process, the 96 Action Officer function is twofold:

a. Providing assistance to the sponsoring OPNAV office (program coordinator/sponsor) in developing a self-consistent decision control document which fairly addresses the pros and cons of the program, including viable alternatives, program structure, cost implications, POM and/or FYDP conflicts, manning implications, effectiveness implications, etc.

b. Informing 96, as an advisor to 090, when a program is not being objectively presented, when documentation is inconsistent or deficient, when prior direction has not been followed or addressed, when potential OSD pitfalls exist, etc.

c. The 96 Action Officer is not

- (1) A program proponent
- (2) A program antagonist

Paraphrased, his function is to be a "friend of the court" and to work to illuminate meaningful considerations for the decision forums.<sup>11</sup>

OP-96 has a reputation of being antagonistic toward certain programs and is distrusted by some Sponsors and program managers. Yet program managers must be mindful of the conflicting and competing interests within OPNAV, SECNAV, OSD, and Congress. While OP-96 exists to assist the CNO in evaluating competing programs, its staff also can assist the program manager in identifying decision makers' concerns and in developing pertinent justification to support the manager's point of view. Managers tend to champion their programs single-mindedly. At times they are unable or unwilling to understand the political thicket they must traverse to obtain program approval. OP-96 is aware of the interests of the DOD Director of Planning and Evaluation and the SECNAV Office of Program Appraisal and can help devise a strategy to satisfy them.

The Navy Program Planning Office (OP-090) which coordinates the CEBs has experienced continuing problems with the adequacy and effectiveness of program manager briefings apart from any disagreement OP-96 may have with a managers' proposals. "The most frequent deficiency encountered is a failure to adequately focus on the issues involved and present sufficient supporting rationale to permit a definitive decision.<sup>12</sup> As a result of the critique during previews of the briefings, program managers often must make major changes to their presentations in the short time before formal CEB. OP-96 suggests that the Action Officer can assist the program manager in formulating and structuring the presentation and thereby minimize the changes that must be made after the previews. In the past, presentations have been too comprehensive and have not been oriented toward the decision to be made. "(The) presentation should be structured to provide:

- a. a statement of the problem (decision point)
- b. background necessary to set the context
- c. past tasking pertinent to this decision point
- d. what has been accomplished re the tasking
- e. program options
- f. impact of options (schedule, cost, performance)
- g. a program cost summary
- h. related issues
- i. recommended action (DNSARC reviews and beyond)
- j. nature of decision needed, when, and why"<sup>13</sup>

In addition to assisting the program manager/Program Sponsor in preparing the briefing, the Action Officer may recommend a pre-pre-CEB briefing for OP-09C/090X, 90, and 96 staff members. Such reviews are optional but are encouraged. The program manager, in conjunction with the OP-96 Action Officer, should weigh the benefits of additional staff advice on highly controversial issues against the time required by the additional review.

While the Action Officer is responsible for assisting the program manager he must also advise the CNO/VCNO on the issues inherent in the subject to be discussed. He evaluates both the program and the content of the presentation to determine whether CNO direction is being carried out and whether OSD/SECNAV concerns are being addressed. OP-96 will ask the program manager to discuss issues he knows are of interest at higher levels. If the program manager refuses, OP-96 will advise the CNO of the controversy, presenting his assessment of the situation. In cases of extreme differences of opinion between OP-96 and the program manager/Program Sponsor, 96 will cancel the CEB. In such instances, unless the PM reconsiders his position, disagreements are resolved through informal political channels rather than through established mechanisms.

The CEB review process actually involves two separate formal briefings. The first is given to the pre-CEB chaired by OP-090 and attended by "two star" representatives from the DCNO/DSMO offices. The second is the formal CEB, chaired by the CNO/VCNO. It is during the pre-CEB that the penetrating questions are asked and the battles are fought. Among the most controversial issues are funding and T&E matters.

OP-96D, as the CNO Advisor for Resource Analysis, evaluates the program manager's cost estimates prior to meeting. Both program managers and staffers indicate that a good rapport usually develops between them during informal meetings. They are usually able to work out differences and the cost estimating questions asked during the pre-CEB come as no surprise to the manager.

Such a cooperative relationship does not always exist between the manager and COMOPTEVFOR. OPTEVFOR representatives and the program manager/Program Sponsor consult before the pre-CEB. Often the OPTEVFOR representatives preview the manager's presentation and, in turn, provide a draft of the OPTEVFOR position. The draft, however, may be changed substantially before the pre-CEB. The Sponsor and the program manager are often surprised with the T&E recommendations presented at the pre-CEB.

Participants at the pre-CEB, of course, consider all aspects of a program's status including technical risk areas, personnel resources and logistic support as well as funding and T&E. If the manager can not answer all questions satisfactorily, or if there are major objections to the program, the CEB may be cancelled or postponed for as long as a year. This means a delay in program schedule while the manager attempts to correct deficiencies in program performance or funding.

If it is determined at the pre-CEB that the full CEB should be held, one can usually guess what the outcome will be. Often, the CNO has consulted with his deputies and staff prior to the meeting and has made a decision with regard to the program. Thus, the program manager who has convinced staff members and CNO advisors of the validity of his proposals can be relatively certain of a successful CEB. The result of the CEB deliberations is recorded in a decision memo which prescribes the program manager's next course of action.

#### CEB Subpanel Reviews

There are several sub-panels associated with the CEB which consider issues pertaining to special areas of interest. The number, topic

orientation, and composition of the subpanels are currently being revised. Two important ones which are involved in acquisition program review are the Acquisition Review Committee (ARC) and the Ship Acquisition and Improvement Panel (SAIP).

The ARC is chaired by the Director, Navy Program Planning (OP-090) and has a permanent membership of the Director, RDT&E (OP-98) and the DCNO, Logistics (OP-04). Force and Mission Sponsors and CNM representatives serve as ad hoc members depending on the program. OPNAVINST 5000.42A indicates that ACAT II programs are normally reviewed by the ARC with OP-090 determining the Navy's preferred alternative and making the recommendation to higher authority if the program warrants SECNAV or DOD attention. In practice, most programs which require higher level review are reviewed by the full CEB.

Some OPNAV staff members feel ARCs are a more efficient means of reviewing acquisition programs than are full CEBs and would like to see CEBs dispensed with for issues concerning individual programs. They feel that CEB members do not function as a corporate body as they were intended. Members are too concerned with promoting their parochial interests. Moreover, they refrain from criticizing each other's programs for fear they in turn will be criticized. Staffers feel that since Sponsors are only interested in their own programs, a meeting involving only those concerned is less time consuming than the pre-CEB/CEB review. It should be remembered, however, that mission and warfare areas overlap and compete for limited funding. Therefore, the pre-CEB/CEB provides a forum for expression of competing viewpoints.

The SAIP is an outgrowth of the Ship's Characteristics Board and assists the CNO by "coordinating the formulation of the Navy Shipbuilding and Conversion programs, the Fleet Modernization program and the ships characteristics requirements for the active and reserve fleets."<sup>14</sup> Among other tasks, it functions in the same manner as the ARC for ship acquisition programs below ACAT I. The DCNO (Surface Warfare), OP-03, chairs the panel and principal members include ship Sponsors, COMNAVSEA and NAVMAT representatives as well as OP-090, OP-04 and OP-96 (non-voting member).

Since most ship acquisition programs are designated ACAT I they undergo a full CEB review prior to each DNSARC and DSARC. It is not necessary to prebrief the SAIP prior to the CEB. Two ships which have undergone SAIP review in recent years are the DDG-2 and the LSD-41. The briefing for the LSD-41 was structured in the same way as CEB Milestone I briefings. The Program Sponsor and program manager presented recommendations for the ship's cost and characteristics. The Chairman approved the concept and directed that the preliminary design phase be completed.

### DNSARC Reviews

In accordance with policy enunciated in DOD Directive 5000.1, DOD Directive 5000.2 (Major System Acquisition Process) specifies that the Services charter a Systems Acquisition Review Council similar to the DSARC to review major system acquisition programs. SECNAVINST 5420.172B establishes the DNSARC and invests it with the following mission:

"...to provide a formal mechanism by which the Secretary of the Navy will receive the advice and counsel of his principal advisors prior to making decisions concerning need, program initiation, continuation of, or substantial change to, systems acquisition programs...."

The DNSARC is tasked to review specified ACAT II programs as well as ACAT I. At present there are no firm criteria for determining which ACAT II programs warrant SECNAV attention. However, SECNAV staff personnel are considering establishing a specific dollar threshold (i.e. \$200M production or \$50M RDTGE) in order to identify programs for which SECNAV should be the decision authority. It is anticipated that the same documentation used to support ACAT I programs will be required for such ACAT II programs. Such programs would have a Mission Element Need Statement (MENS) and a Navy Decision Coordinating Paper (NDCP) which could be converted to a DCP if necessary. (Staffers do not envision a need for a MENS for programs below ACAT II.)

DNSARCs are held for ACAT I programs in order to develop a Navy position for consideration by the DSARC. DOD Directive 5000.2 requires that they be held prior to Milestones I, II, and III. In addition, the Services and OSD have agreed that individual program submilestone

points, approved by SECDEF at the primary Milestone reviews, should be the responsibility of the Service Secretaries. After program reviews by the Service SARCS the Services are to provide SECDEF with decision memoranda to document the results. In the event that critical milestones or thresholds are not met SECDEF can modify the decision or convene a DSARC to examine the program further.<sup>15</sup>

A "submilestone" DNSARC was held in the fall of 1976 for the CH53 helicopter. The program was scheduled for a Milestone III DSARC review in 1977. Because of technical performance problems, the DNSARC recommended design changes, altered the funding profile and slipped the program schedule. OSD accepted the DNSARC recommendations.

Programs are constrained to meet cost, performance and schedule thresholds by the DCP. If a program manager determines that the approved thresholds are no longer valid, he may recommend changes through the Navy review chain to the DNSARC. Upon the DNSARC's recommendation, SECNAV may approve the revised DCP and forward it to DEPSECDEF. As evidence of the recent tendency toward decentralization of decision-making DEPSECDEF may not consider it necessary to convene the DSARC. In such cases, after individual reviews of the DCP by appropriate DOD officials, DEPSECDEF would approve the changes.

The DNSARC consists of nine principal members: the Secretary of the Navy, the Under Secretary, the Assistant Secretaries, the CNO, the CNM, and the Commandant of the Marine Corps. DOD Directive 5000.2 states that the (S)SARCS will be chaired by the Service Secretary or Under Secretary. Adoption of this procedure by the Navy would mean a

philosophical change in the utilization of the DNSARC as a recommending body. Heretofore the DNSARC has been chaired by the ASN(R&D) for Milestones I and II and by ASN(I&L) for Milestone III. The SECNAV and UNSECNAV may attend the reviews but usually only to obtain background information. The other Principals question and discuss but SECNAV/UNSECNAV remains aloof from the meeting deliberations and any arguments which ensue.

After the meeting the nine Principals meet in Executive Session. At this time the DNSARC chairman makes his recommendations. SECNAV then asks additional questions, makes an independent assessment of the situation and accepts or rejects the recommendations. In this way SECNAV functions in his executive managerial capacity without becoming involved in the detailed investigations of his staff.

Another strategem used by the Navy to increase the influence of the Secretary involves the manner in which SECNAV recommendations are forwarded to OSD. The Navy letter with the DNSARC recommendations, signed by the UNSECNAV is sent to DEPSECDEF. In the event that the Deputy disagrees with it, the SECNAV can go above him and intercede directly with SECDEF. thereby raising the discussion to the full Secretarial level.

Current Navy instructions indicate that for pre-DSARC reviews, two DNSARCs should be held. In fact, it is so difficult to get all the Principals together that only one DNSARC is held. DNSARC briefings usually take one hour including the presentations and a question period.

The Program Coordinator/Sponsor introduces the topic, the program manager presents alternatives and COMOPTEVFOR and OASN (Financial Management-FM) provide their independent assessments of T&E and cost. Specific categories to be addressed in presentations are included in SECNAVINST 5420.172B. For pre-DSARC reviews COMOPTEVFOR and OASN(FM) also present the views of DDT&E and the DOD Cost Analysis Improvement Group (CAIG).

SECNAV's decision regarding the DNSARC review is reflected in two memos. One forwards the recommendation to DEPSECDEF. The other is an internal Navy memo providing detailed guidance for continued prosecution of the program. At times the program manager is able to participate with the DNSARC Executive Secretary (Director, Office of Program Appraisal (OPA)) in drafting the second memo. To some extent the manager is able to ensure that this written guidance is phrased to his advantage.

Staff members within CNO and OPA are somewhat skeptical of the effectiveness of the other's review mechanism. Military officers feel that CNO is in a better position to understand system requirements and that SECNAV (and OSD) deliberations disturb the acquisition cycle and cause unacceptable schedule delays. They feel the SECNAV staff becomes too embroiled in political issues which are not pertinent to the task of providing the Fleet with adequate fighting capabilities.

SECNAV staffers who must to a greater extent span the boundary between the Navy and the outside world and therefore must be more politically attuned, do not consider the CEB a truly deliberative body. They feel that the disciplined philosophy of the military chain

of command dissuades participants from criticizing, let alone adequately discussing the issues. They categorize the CEB as more of a one-sided public hearing that an open exchange of views and feel that once the CNO's mind is made up there can be no further discussion on an issue.

In contrast they claim that the DNSARC constitutes a dynamic, aggressive review process. DNSARC members ask more penetrating questions since they want the Navy to be fully prepared at the DSARC. They want to take several sound alternatives forward for DSARC consideration and want to ensure that the Navy recommendation is fully justified. In fact, if the DNSARC does a creditable and credible job, SECDEF can waive the DSARC, thereby allowing the Navy more control over its own matters. This has happened in the case of Harpoon and other systems.

This situation constitutes the fulfillment of the NMARC study recommendation to 'Utilize a strong, active (D)NSARC to preclude the need for requests for information from OSD.'<sup>16</sup> However, the following NMARC recommendation relative to DNSARC and the CEB is not considered feasible by either organization:

"The CEB provides top OPNAV level involvement and review, but it does not include the Secretariat or assure the necessary continuity of review and commitment. There is a tendency for personnel at the highest level to limit special program reviews to pre DSARC actions or for various members of the Secretariat or CNO organizations to review programs individually on certain occasions, such as budget formulation. This situation could be improved if the... (D)NSARC) were to meet at least quarterly to provide advice collectively to the SECNAV concurrently with the recommendations advanced by the CNO relative to any given issue."<sup>17</sup>

Personnel associated with the CEB are emphatic in their desire that CEB members be thoroughly briefed on and in agreement with a well thought out CNO position before any issues are raised to the SECNAV level. SECNAV staffers point out that it is difficult enough to get DNSARC members together for the existing program review schedule and that quarterly meetings for extended discussion of broad issues would not be possible considering schedule constraints of individual members. They feel as well that DNSARC meetings should be the fora for SECNAV level decision making and that all inputs should be well staffed before they are presented.

In short, each review group represents its own realm where it serves as the governing body. Each group approaches decision making and problem solving differently because of the backgrounds of the members (career military vs civilian political appointees). Each group has a specific function in the hierarchy of DOD. While there is overlap or linkage in the person of the CNO who is a member of both review groups, it is unlikely that either group would accept even the appearance of infringement of its authority over its own perceived responsibilities.

### DSARC Reviews

The DSARC is of course the culmination of the review process for ACAT I programs. The revised DODD 5000.2 states that while the DSARC will not be convened to approve the Milestone 0 decision, it will review at Milestone I those major programs classified as strategic, nuclear, joint Service, multi-national, intelligence or communications, and command and control. All major acquisition programs will be reviewed at Milestones II and III unless specifically waived by SECDEF. The DSARC is chaired by the Defense Acquisition Executive. Principal members include DDR&E, ASD(I&L), ASD(C), ASD(I), Director of Planning and Evaluation (P&E) and the Director of Telecommunications and Command and Control.

At this point, Service staff members are unsure of the roles the SECDEF and DEPSECDEF will play in relation to the DSARC since the Acquisition Executive has not been identified. It is assumed that DDR&E will take on that function thereby allowing SECDEF and DEPSECDEF to remain aloof from the actual DSARC deliberations. Such a procedure operated in the past with the result that DSARC decisions were sometimes reversed by DEPSECDEF. This was the case with the PHM initial production decision. Responding to pressure from the ASD (International Security Affairs) and NATO, Secretary Clements approved production of the PHM despite the DSARC recommendation to the contrary. However, decisions made under such circumstances can be ephemeral if the political appointee leaves and staff members who had opposed his decision remain behind.

It is the program managers' relations with DSARC Advisors and staff during preliminary briefings which greatly affect outcome of the DSARC. DOD and Navy instructions prescribe pre-briefs to the CAIG and to DD(T&E) who as DSARC advisors must present their independent cost analysis and test and evaluation assessments to the DSARC. OP-96 is responsible for briefing the CAIG 10 days prior to the DSARC. But there may have been months of interaction among program manager, OP-96 and CAIG personnel to develop an understanding of each cost estimate and to resolve cost issues. Personnel at the program manager, OPNAV and SECNAV levels indicate that relations with the CAIG are good and that they are usually able to work out disagreements so that the CAIG final report to the DSARC is favorable.

The program sponsor, assisted by COMOPTEVFOR and the program manager provides the T&E briefing to DD(T&E). Preliminary staff work is done to provide DD(T&E) with test plans and results. Again, once the Navy position has been agreed upon it is usually not too difficult to reach an understanding with DD(T&E). However, there have been recent exceptions which point out the need for rigorous internal scrutiny of the Navy position prior to DSARC.

Navy relations with the staff of the Planning and Evaluation Office have not always been smooth. At times there are major disagreements between the Service and the OSD systems analysts concerning the need or mission of a system. Despite a dialog before the DSARC the Navy has been surprised by unexpected questions posed by ASD(P&E) at the formal meeting.

DODD 5000.2 provides a checklist of issues which are addressed by the DSARC at each Milestone point. In summary, the following topics have been identified as issues frequently debated at DSARC reviews:

1. Requirement for weapon system

- Why needed? (Threat/Mission)
- Will (Does) the candidate system measure up technically?
- Is the quantity sought defensible and realistic?
- What alternatives do we have?
- Will the investment be proportionate to the value added?

2. Readiness to go forward

- Are technical risks in hand?
- Do test and evaluation results bear out the system's worth?
- Is the planning for resolving deficiencies sound and affordable?
- Are program cost estimates and procurement planning compatible, well structured, and corroborated?
- Can we now afford it?

3. Acquisition Strategy and Life Cycle Planning

- Is the procurement plan realistic from a business standpoint?
- Do cost estimates reflect the plan and the risks in executing it?
- Is the requisite industry capacity and capability available?
- How well does the plan attain the "Fly Before Buy" concept of reducing the risk of ownership?
- Is there cohesion among the physical product, how it is to be used, and the logistic support plan?<sup>18</sup>

The program manager who is prepared to address those questions, has a well written and coordinated DCP and the backing of the Service should not find the DSARC itself difficult. The program manager spends his effort beforehand in attempting to reach a consensus with Navy and OSD staff personnel. OPNAVINST 5000.46 lays out a 6 month schedule for the development of the DCP and the preparation for DSARC. (See Exhibit 3) However, program managers report 8-9 months of solid work with preliminary

discussions of crucial issues (inter-agency or multi-national) beginning as early as two years before DSARC.

Although some program managers relish the visibility of an ACAT I program and enjoy "special" relationships with OSD, many feel that OSD reviews are a duplication of effort. NMARC reported that duplicative OSD staff level functions placed a heavy, non-productive burden on managers and increased the total time and effort needed to carry out an acquisition program. In addition it pointed out that "...the short average tenure of senior civilians and military personnel (approximately 2 years) at the staff review level, ...creates an extensive need for learning and information presentation."<sup>19</sup>

Despite the policy of decentralization during recent years, Navy personnel have sensed a feeling of resistance on the part of OSD staffers. While DEPSECDEF granted the Navy the authority to make the pilot production decision for the Harpoon missile, OPNAV personnel continued to receive questions from working level OSD staff. Judging from the past experience of current DOD officials and Congressional desire for the moderating influence of DOD on the Services it appears that decentralization may not proceed any farther. However, interfaces with OSD do not necessarily complicate the program manager's life, they simply take up more time. A good program manager has ways of coping with higher echelon demands. As one staffer put it, after the DNSARC, the DSARC is a piece of cake!

## SECTION VIII

### PROGRAM REVIEWS WHICH COMPLEMENT THE MILESTONE REVIEW PROCESS

#### Naval Material Command Headquarters Reviews

On April 4, 1977 the Naval Material Command Headquarters underwent a major reorganization designed to emphasize and improve the management of the acquisition and logistics support of Navy weapon systems. Key elements of the reorganization were the establishment of Deputy Chiefs of Naval Material for Acquisition and Logistics. These DCNMs are to be aided in their management functions by an Acquisition Review Board which will consolidate and integrate program reviews previously sponsored by several NAVMAT offices.

The primary vehicle for CNM program reviews has been the Quarterly Project Status Review. It was established as a means by which the CNM could carry out his responsibilities for assessing the status of programs and the adequacy of associated project management. In addition, it provided him a means of monitoring information which was to be presented to higher authority.

The CNM Quarterly Review covered ACAT I and other designated high interest programs which had not reached Milestone III. In addition, since November 1976, post Milestone III programs previously under the DSARC monitoring process were included.<sup>20</sup> (DEPSECDEF memo of 23 Jan 1976, in implementing recommendations of the OSD Acquisition Advisory Group Study, assigned control to the Secretary of the Navy for eleven major Navy programs which had been under the DSARC monitoring process. UNSECNAV memo of 31 March 1976 added 5 other programs and assigned

ASN(I&L) as the reviewing authority. The ASN(I&L) quarterly review of those programs was distinct from although coordinated with the CNM Quarterly Review until November 1976.)

ACAT programs designated for quarterly review number over 200. In general, the CNM reviewed 18-19 programs each quarter. It was estimated that 5% of his time was spent in this formal review process. In order to ensure that this high level management attention was directed to the areas where it was most needed, analysts in the office of the former DCNM for Programs and Financial Management scheduled programs for review on the basis of severity of program problems, proximity of DSARC and other high level reviews, interest on the part of CNM and criticality of the individual program in relation to the total Navy acquisition program.

Nevertheless, it became apparent to NAVMAT management that this primarily informational review was not the most effective means of focusing top management attention on critical issues. Routine reviews were scheduled too frequently at too high a level and consumed too much of the CNM's and DCNM's time. Scheduled reviews were often deferred or held without principal DCNMs in attendance. When substantive issues were raised, additional reviews had to be scheduled which resulted in increased expenditure of management time and attention. It was felt that in order to improve the quality and effectiveness of reviews and to deal with substantive issues of concern, it would be necessary to reduce the number of reviews and ensure that the principals attend.<sup>21</sup>

The Organization Review Panel, chartered by the CNM in September 1976 to conduct Phase III of the NMC Organizational Study, identified (among others) the following NAVMAT headquarters functions:

- (Development of) broad acquisition strategy objectives
- Allocation of resources
- Interface with CNO, OSD, and Congress as advocate for material programs
- Review and endorsement of programs especially prior to major milestone decisions.<sup>22</sup>

To carry out these functions and to strengthen the NAVMAT role in material acquisition, the Phase III Study Group recommended the establishment of an Acquisition Review Board (ARB) chaired by an Acquisition Chief. The ARB would become "...the principal forum for technical and business reviews of major material programs ...and be the vehicle with which the CNM should exercise his authority to certify the technical, financial, and scheduling merits of major programs."<sup>23</sup> The composition and functions of the ARB would ensure the consideration of acquisition/logistic interfaces during the life cycle of a system. On 10 February 77, the CNM approved the recommendations, directing the establishment of a DCNM for Acquisition and the ARB.<sup>24</sup>

It is currently envisioned that the ARB will consist of the following Principal members:

DCNM (Acquisition) (Chairman)

DCNM (Logistics)

SYSCOM Commander(s) or Representative(s)

Director of Programming and Financial Management

ADCNM (Reliability and Engineering)

ADCNM (Procurement and Business Management)

Additional representatives from NAVMAT, CNO, USMC, and SECNAV will be invited as appropriate. Consistent with concept of the ARB as an advisory body to the CNM, the Chief would sit in on the ARB deliberations only for extremely urgent issues or for previews of CEB/DNSARC/DSARC presentations.

ARB staff personnel are in the process of definitizing functions and procedures of the Board. Their philosophical considerations regarding the use of the ARB as a management tool include the need to integrate formal program reviews with other forms of program monitoring and appraisal, the desirability of a broad charter which allows flexibility in determining the purpose and scope of reviews and a recognition of the value of both program and executive managers' time. To this end the staff has proposed that the ARB undertake both scheduled and situational reviews.

Scheduled or Selected Reviews will encompass information reviews similar to the old CNM Quarterly Review, pre CEB/DNSARC/DSARC reviews and the former ASN(I&L) review of post Milestone III programs. The ARB staff will utilize several sources including Problem Event (P/E) Reports, Briefings, Issues, Projects, and Programs (BIPP) Reports, and Quarterly Status Reports (QSR) to monitor upcoming program events, accomplishments or deviations from established cost, schedule, and performance thresholds. Program activity will determine when programs are scheduled for review. The activity or event orientation of the reviews and the corporate attention brought to bear on the program will enable the ARB to serve as a vehicle for evaluating program status and providing redirection in the event of moderate divergence from established

thresholds. In addition, ARB reviews will be used to develop a coordinated CNM position for CEBs, DNSARCs and DSARCs. The broad-based experience of ARB participants will foster the dissemination of lessons learned in other acquisition programs.

The situational or Issue Reviews would be called as required by the DCNM (Acquisition) to discuss and resolve problems which affect major projects or NAVMAT corporate policy, such as business management, budgeting policy, project management, etc. In most cases involving either the Selected or Issue review, the ARB would meet in executive session following the presentation to formulate recommendations for CNM action. However, in critical situations the CNM may attend the Issue Review and make immediate decisions based upon ARB discussion.

Recognizing the limited amount of time each ARB Principal could profitably spend in formal meetings and the advantages of decentralized decision-making, CNM personnel advocate restricting ARB reviews to ACAT I and II programs unless the magnitude of an ACAT III or IV program issue warrants CNM attention. However, they emphasize that periodic reviews of all programs should be accomplished by flag rank personnel in the SYSCOMs or CNM designated Program Management offices. Such reviews are discussed below.

### Systems Command Reviews

NAVMATINST 5000.19A specifies that designated acquisition projects be reviewed at least quarterly by higher level Navy management (i.e. the CNM, CNM designated Project Manager and Systems Commanders). The scope of the project and currency of project interest determine the highest level at which the review would be scheduled. The Naval Sea Systems Command (NAVSEA) implemented the instruction by establishing the Project Status Review Board (PSRB) under the cognizance of the Deputy Commander for Plans, Programs and Financial Management/Comptroller. The PSRB is chaired by the Commander or Vice Commander with permanent members consisting of flag or senior civilian representatives from the Financial Management, Contract, Logistics, and Weapons, Systems, and Engineering Directorates. Representatives from all other NAVSEA Directorates serve as Ad Hoc members.

Initially some 26 programs, mostly ACAT I were identified for review. By virtue of the broad Command representation on the PSRB, it was hoped that duplicate NAVSEA reporting and review efforts for those programs could be eliminated. In addition, the PSRB would direct top SYSCOM management attention to relatively important programs not normally reviewed outside the Command. To a limited extent the Board has achieved its goal. Some functional area managers have found PSRB meetings a convenient way to keep track of the programs they are supposed to monitor and support. And based upon PSRB findings, VICECOMNAVSEA has directed in depth reviews of problem areas such as reliability and maintainability.

However, the Office of Program Appraisal and Internal Review (SEA-01F) which coordinates the PSRB is dissatisfied with its effectiveness. Personnel feel the review is too time consuming and manpower intensive for the benefits derived. The Office is under staffed to perform the degree of analysis it would like. Board members relegate PSRB meetings to a low priority and often do not attend. SEA-01F feels that for the most part, participants merely go through the motions and that there is no real examination of program issues. While the PSRB ostensibly reviews financial, schedule, and technical status, the program managers briefings are too technically oriented. Managers focus on their technical achievements but fail to address program problems.

The Office of Program Appraisal and Internal Review is intent on revamping the PSRB in ways which will coincide with the NAVMAT ARB philosophy of issue and event oriented reviews. The DCNM (Acquisition) has indicated that "periodic review of programs should be accomplished at the lowest flag acquisition management level within a SYSCOM. This will free the SYSCOM/NAVMAT review boards to conduct, without delay, the necessary milestone and issue related reviews."<sup>125</sup> SEA-01F agrees that Directorate executives can do an adequate job of monitoring their programs. SEA-01F hopes to reserve PSRB meetings as problem and decision briefings held only when there is a need for direct action or assistance on the part of the Commander or Vice Commander. An example of such action might be SEA-00/09 assistance in securing additional program funds. In addition, PSRBs would be held when program managers anticipated near-term variations from DCP/NDCP thresholds.

Such cases would require a Command position as to alternatives which could be recommended to higher authority.

The span of control regarding formal program reviews becomes much more manageable at the SYSCOM Directorate or CNM designated PM level. There is a greater meshing of perceived interests on the part of individual acquisition managers and their immediate superiors. Directorate heads and PMs feel a responsibility for remaining knowledgeable of program progress and variances. On the other side, program managers appreciate the opportunity to advise their superiors of program success. They also realize that in the event of problems the immediate superior is the one to turn to for assistance and the earlier the better.

The Anti-Submarine Warfare Systems Project (PM-4) and the Weapons, Systems and Engineering Directorate (SEA-06) have established, formal, periodic program reviews which satisfy the CNM requirement for flag level acquisition management attention. Their procedures could serve as models for establishing similar reviews within the Systems Commands.

### Design, Producibility, and Product Quality Reviews

The program reviews discussed up to this point have been similar in purpose and in format. Their objective has been to provide higher level management with cost, schedule, and technical status information so that a decision could be made regarding the direction and progress of a program through the acquisition cycle. The reviews have consisted of a relatively brief presentation by the program manager perhaps with corroborating or dissenting presentations by other Navy/OSD offices to the decision-making body. It should be pointed out that the Navy program review process provides for other more detailed technical program reviews. The information resulting from the extended reviews forms a basis for the management decision briefings.

Weapon system readiness and effectiveness problems experienced during the Vietnam War and persisting today have forced increased attention to the design aspects of reliability, maintainability, and producibility. NAVMAT and the SYSCOMs have established independent, functionally oriented offices to examine these aspects of the technical status of programs. The technical design reviews last from 2 days to several weeks and typically involve a team of functional experts as well as project personnel. The reliance on formal presentations varies, but a significant characteristic of these reviews is the team's examination of design documentation and contractor practices. All acquisition programs are subject to the reviews but manpower limitations have restricted the reviews to selected programs.

Perhaps the most respected although not necessarily the most detailed of the design reviews is the Preproduction Reliability Design Review (PRDR) conducted by the ADCNM (Reliability and Engineering). Established by NAVMATINST 3900.13, the PRDR is conducted after the completion of IOT&E and forms a major basis for the CNM recommendation to the CEB regarding a production decision. Its objective is to bring SYSCOM/CNM top management into the technical end of the procurement process. Flag level acquisition personnel meet with contractor executives to examine the contractor's design philosophy, analyse the system design and assess feasibility of fabrication and producibility. Any deficiencies uncovered are documented and the SYSCOMs are given responsibility for ensuring that corrective action is taken.

Within NAVSEA, follow-up reviews may be conducted by either the Chief Weapons Engineer (SEA-00E) or the Deputy Commander for Reliability, Maintainability and Quality Assurance (SEA-98). In addition, these offices conduct their own independent audits of program design, producibility and quality. For the most part their reviews are not duplicative. In general, the OOE reviews represent a higher level management attention to programs in which problems are already evident. The SEA-98 reviews are working level investigations to assist the program manager in ensuring satisfactory design and development. Results of the SEA-00E/98 reviews are provided to the program manager and to COMNAVSEA but are not distributed outside the Command without their approval.

## SECTION IV

### IMPACT OF PROGRAM REVIEWS ON THE PROGRAM MANAGER

It is DOD policy that "Because of the demanding nature of the program management task, all levels of authority in the DOD shall ensure that the program manager is not diverted from his primary goal by unnecessary reports, reviews and briefings. The program manager's involvement in higher level actions shall be restricted to those actions essential to program execution." (DODD 5000.2) When the question is put to Navy personnel as to whether the program manager is overburdened by reviews one receives an immediate affirmative response. After some reflection, however, managers and staff members modify their initial statements.

The experience of the CAPTOR project office gives an idea of the magnitude of effort involved in preparing for a DSARC. The preparations totally occupied the time of three people for eight months. In addition, five other employees were involved intermittently. The program manager and his deputy participated in thirty-five briefings and murderboards. The program manager briefed every organizational level from his directorate head up to the DSARC. In addition, one month before the DSARC, the program was examined in a Design Review conducted by the NAVSEA Chief Weapons Engineer.

CAPTOR is a high dollar program even as ACAT I programs go, and had become quite controversial because of its IOT&E results. It is understandable that each management echelon should want to be prepared for its superior's questions. Personnel in the office are philosophical

about the dilemma between the need for informed management and the drain on the program manager's time. At least in the larger program offices there are sufficient personnel to carry on project operations while the manager is briefing.

In smaller offices where the manager must assume some of the day to day work, managers are bitter about the requests for information generated even for ACAT III programs. One program manager complained that Sponsors require point papers that duplicate briefings and misplace the backup material provided so that they continually call the manager for the same information. CNO staff members concur that the briefing preparation is not so burdensome but the revisions to the paperwork (DCPs and budgets) to incorporate review decisions are extremely time consuming.

Sponsors acknowledge that program managers may be micro-managed; in other words that extensive briefings and attendant program revisions diminish the manager's authority as granted in DODD 5000.1. As a result of pre-briefings to intervening management echelons, the program manager's concerns may not be apparent by the time the briefing is presented to the decision maker. Management layers filter the problems, revise the preferred alternatives, and reevaluate the emphasis placed on various issues. Nevertheless, if the program manager is giving the presentation, he can make certain that the decision maker receives his message despite instructions from immediate superiors. At times the manager develops a rapport with the decision maker which is not shared by his superior. This can be used to his advantage during the review process.

Some OPNAV personnel are concerned that as an outgrowth of the extensive review process the program manager becomes too much an advocate for his program. He is continually defending rather than managing his program. As he invests so much of his time fighting for resources and program approval, he psychologically transfers the program's interests to his own. It is suggested that the program manager should concentrate his efforts on efficient management while the OPNAV Sponsor defends and promotes the program at higher levels.

While Sponsors are rarely successful in minimizing the number of pre-briefings, they can make things easier for the program manager by making contacts and scheduling meetings. The Program Sponsor may have to be pressured but he usually can take care of a lot of coordination effort. Depending on his style and the personalities involved, a manager may prefer to work around his Sponsor and talk directly to "the guys that bite." In that case, as mentioned earlier, the OP-96 Action Officer is quite willing to assist the manager in preparing for review board questions. Because of their desire that the Navy present strong cases to the DNSARC and DSARC, OPA personnel are interested in assisting the PM with his presentation. As civilians (and possibly political appointees) they can relate to civilian DOD staff more easily than can military program managers. They can facilitate an understanding of mutual concerns on the part of DOD staffers and program people and, hopefully, preclude surprises at the DSARC.

In the final analysis it seems that good managers aren't bothered by reviews. Managers can turn pre-briefings to their advantage by using

them as sounding boards for their proposals. As one manager said, he needs every objective look he can get. Staff questions may take time to answer but they help prepare the program manager for the final briefing. If managers have to live with reviews they find ways of coping with them.

SECTION X  
SUMMARY AND CONCLUSIONS

The Navy program review process is a viable means of providing management information needed to assess program progress, redirect effort, and plan future courses of action. The review system is formalized so that top management attention is focused on the exceptional programs. A structure in the form of guidelines and reviewing bodies exists which if properly utilized will enable adequate management attention to the more routine or low dollar value programs. Attempts are being made at several levels to more clearly define and improve the utilization of the existing system.

The review system prescribed in OPNAV 5000.42A is most rigidly adhered to for ACAT I programs. There is direct pressure from DOD and Congress to assure a thorough review of cost, schedule and performance issues at the major milestones. The quality and level of management attention directed toward ACAT II programs varies because there are no firm thresholds to define the decision authority. While the review procedures must be flexible enough to allow for adjusting the level of decision authority based on actual program need rather than solely on dollar value, program cost is as good an indicator as any of program complexity and risk. Thus, the intention to establish a new category of programs which warrant SECNAV review will clarify management responsibility for those important programs which do not require OSD approval.

For those programs which do not require full CEB approval and whose Sponsors do not have the time to conduct an all-encompassing review at

the major milestone points it may be possible to utilize the CNM Acquisition Review Board. This would ensure that logistics, engineering, cost, and schedule issues would be addressed and that NDCP revisions would be thoroughly examined. Whether decision authority remained with the Sponsor or was delegated to the CNM, the ARB would serve as the examining and recommending body.

It has also been suggested that in order to consolidate the numerous prebriefs required for a DNSARC or DSARC, the ARB be used as the forum for CNM/Sponsor reviews. This would ensure an understanding of the positions the Sponsor, the CNM and the program manager would take at the pre-CEB. It might simplify matters for the program manager who in effect responds to both the CNO Sponsor and the CNM if he could explain his proposals to both at the same time. Such a meeting might eliminate some of the controversy in the pre-CEB. However, for the ARB review to preclude the pre-CEB would require a change of emphasis in the CNO review process since the CEB rather than the pre-CEB would then become the battleground for the competing views of the DCNOs/DCMOs, Sponsors, and COMOPTEVFOR.

It appears that there can and should be consolidation of SYSCOM program review boards. If the revised NAVMATINST 5000.19 requires establishment of SYSCOM boards similar to the ARB, it is only logical that they assume responsibility for approval of ACAT IV programs currently delegated by NAVMATINST 3960.6A. While there is a need for routine, periodic management reviews, they are most effective when held only one or two levels above the program manager. For reasons

discussed earlier, Directorate or CNM designated PM reviews have been more successful than periodic SYSCOM level reviews. Current NAVMAT thinking is that periodic reviews should be accomplished at the lowest flag acquisition management level within the SYSCOM and that SYSCOM review boards should focus on milestone and issue-related reviews. The milestone points, particularly the transition points from exploratory to advanced development and from full scale engineering development to production are the most critical and require the involvement of the financial, R&D, engineering, and logistics elements of the organization. Since major changes in funding and program responsibility occur at these points, top management must be involved in the planning and coordination effort.

While organizations should attempt to keep reviews from proliferating it must be recognized that consolidation will not have a lasting effect. Every level within an organization needs specific information. Whether to justify the importance of their own jobs or to be prepared for their superiors' questions staff members will reinstitute their own reviews if the consolidated review does not suit their purpose. The organization must maintain a flexible approach to reviews revising their purpose, timing and membership when they no longer satisfy management's needs.

That philosophy aside, the program manager must recognize "that higher management has responsibilities and will carry them out. He must cope with the requirements of the program review."<sup>26</sup> The review process provides good exposure. It is in the manager's best interest to sell

his program to staff personnel who influence their superiors' decisions. The program manager should take advantage of the assistance that can be provided by the NAVMAT ARB staff, his Sponsor, OP-96, OPA, and even OSD staff in order to coordinate and prepare for the review.

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<sup>7</sup> NMARC, op.cit., Vol. II p. 10.

<sup>8</sup> CNO Memo, "Navy System Acquisition Steering Group," Ser 098/630003, March 16, 1976.

<sup>9</sup> Mary Ann E. Nason, The Navy Programming Process: The Program Objective Memorandum (POM), DSMS Study Report, May 1975, p. 54.

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<sup>12</sup> CNO Memo, "Preparation of Briefing for CEB and NADEC Reviews," Ser 090/51727, May 27, 1975.

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<sup>15</sup> Joint Memorandum for Deputy Secretary of Defense Clements, "Systems Acquisition Policy Recommendations," February 5, 1976.

<sup>16</sup> NMARC, op.cit., Vol. II p. 20.

<sup>17</sup> NMARC, op.cit., Vol. II p. 10.

<sup>18</sup> Naval Sea Systems Command, PMS-399, DSARC Process  
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<sup>19</sup> NMARC, op.cit., Vol. II p.20.

<sup>20</sup> CNM Memo, "ASN(I&L)/CNM Program Reviews," November 19, 1976

<sup>21</sup> CNM Memo, "Meeting with ASN(I&L) Concerning Program Reviews," O3Y/JFG, March 17, 1977.

<sup>22</sup> Naval Material Command, Final Report of the Phase III Panel on Improving Management of Acquisition in the Naval Material Command, December 22, 1976, p. 5-2.

<sup>23</sup> Ibid., p. 10-3.

<sup>24</sup> CNM Memo, "Phase III Study to Improve Management of Acquisition in the Naval Material Command," OO Memo 67-77, February 10, 1977.

<sup>25</sup> CNM Memo, op.cit. of March 17, 1977.

<sup>26</sup> Andrew Low, Instructor, Defense Systems Management College, Lecture, April 12, 1977.

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## DCP/DSARC SCHEDULE

CALENDAR WEEKS	-25	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0
WEEKS PRIOR TO DSARC																										
PROPOSED DRAFT DCP OUTLINE TO OSD	1																									
APPROVAL OF DCP OUTLINE		9																								
REQUEST OP-96 ANALYSIS OF ISSUES AND ALTERNATIVES			1																							
REQUEST OP-96D PARAMETER COST ANALYSIS				1																						
CONDUCT INITIAL REVIEW OF ILS PROGRAM DOCUMENTATION					6,1,11																					
PROPOSED DRAFT DCP COVER SHEET REVISION OUTLINE TO OSD*																										
ARRANGE CEB THRU DSARC REVIEW PROCESS WITH OP-090X																										
PROVIDE ANALYSIS OF ISSUES AND ALTERNATIVES TO PROGRAM SPONSOR																										
APPROVAL OF DCP COVER SHEET REVISION OUTLINE*																										
DISTRIBUTE DRAFT DCP/DCP COVER SHEET REVISION FOR COMMENTS																										
RECEIVE NAVY DRAFT DCP COMMENTS FROM COGNIZANT STAFF OFFICES																										
NAVY DRAFT DCP PRESENTATION TO PRE-CEB																										
PROVIDE PRELIM. ASSESSMENT OF PROGRAM COST ESTIMATES FOR PRE-CEB REVIEW																										
PROVIDE UP-TO-DATE RESOURCE ANNEX TO OP-090																										
NAVY DRAFT DCP PRESENTATION TO CEB																										
DSARC OR SECNAV/CNO/CMC REVIEW TO ESTABLISH NAVY POSITION ON ISSUES																										
INCORPORATE NECESSARY CHANGES IN NAVY DRAFT DCP/REVISION, OBTAIN CHOPS, DELIVER TO OP-987																										
FORWARD NAVY DRAFT DCP/REVISION TO ASN(R&D OR ISL)																										
PROVIDE FINAL DETAILED PROGRAM COST ESTIMATES & SUPPORTING RATIONALE TO OP-96																										
NAVY DRAFT DCP/REVISION TO OSD																										
REQUEST SCHEDULING OF DSARC MEETING																										
ISSUE "FOR COMMENT" DRAFT DCP/REVISION																										
OBTAIN APPROVAL FOR SERVICE USE**																										
PROVIDE LOGISTICS SUPPORT PLAN SUMMARY TO OP-04																										
PROVIDE FINAL REPORT OF LOGISTICS PROGRAM READINESS																										
DISTRIBUTE "FOR COMMENT" DRAFT DCP FOR CONCURRENCE & FORWARD TO OP-987																										
"FOR COMMENT" DRAFT DCP TO ASN(R&D OR ISL)																										
NAVY COMMENTS ON "FOR COMMENT" DRAFT DCP/REVISION TO OSD																										
PROVIDE COST ESTIMATES TO OP-96D																										
BRIEF DEPUTY DIRECTOR (T&E) ODR&E																										
ISSUE "FOR COORDINATION" DRAFT DCP																										
PRESENT INDEPENDENT PARAMETRIC COST ANALYSIS TO CAIG																										
BRIEF DSARC PRESENTATION AT PRE-DSARC/DSARC REVIEW																										
ENSURE COG, ASN(CNO)/DSO STAFFS REVIEW AND VERIFY "FOR COORDINATION" DRAFT DCP																										
DSARC PRESENTATION																										

1. PROGRAM SPONSOR
2. PROGRAM COORDINATOR
3. PROJECT MANAGER
4. ASN (R&D)/ASN (ISL)\*\*
5. OP-098
6. OP-094
7. COMPTIEFOR
8. OP-96
9. DDR&E/ASD (ISL)\*\*
10. OP-96D
11. NAVMAT

\* ~ FOR REVISION TO APPROVED DCP  
\*\* ~ FOR DSARC III ONLY